REMARKS

Reconsideration and allowance are respectfully requested. Claims 1, 2, 5-33 and 36-59 are all the claims pending in the application. Applicant submits the pending claims define patentable subject matter.

Claim Rejections - 35 USC § 112

Claims 32 and 33 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Claims 32 and 33 remain rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Additionally, claims 36-59 are rejected under 35 U.S.C. §112, first and second paragraphs, since the claims are dependent upon independent claims 32 and 33, respectively.

Applicant submits the amendments made herein obviate the §112, first and second paragraph rejections. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejections.

Claim Rejections - 35 USC § 101

Claims 32, 33, 36-59, stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter.

The Examiner now rejects claims 32, 33, 36-59 under §101, asserting that the claims do not have "the claimed computer-readable medium encoded with a computer program (or computer executable instructions or instructions capable of being executed by a computer)."

Applicant submits the amendments made herein obviate the §101 rejection. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection.

Claim Rejections 35 USC § 103

Claims 1, 2, 5 - 28, 32, 36 - 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludwig (US 6,697,352 B1) and Sutoh (US 6678770 B1) in view of Zhu (US 6,154,780). Applicant submits the rejection is improper.

In the current Office Action, the Examiner essentially repeats the previous grounds of rejection. The Examiner also responds to our arguments submitted October 24, 2007, stating:

> [r]egarding claims 1, 2, 32, 33, Applicant argues the reference Ludwig does not mention specifically transmitting payload and header information in either acknowledged or unacknowledged modes, as recited in the claims. Ludwig discloses the TCP packets are transmitted only in numbered channels, and UDP packets are transmitted only unnumbered channels. Examiner respectfully disagrees. Examiner contends the reference Ludwig discloses implicitly transmitting payload and header information in acknowledged or unacknowledged modes (see column 2, lines 10 - 20; column 7, lines 46 - 50; column 11, lines 51 - 56). According to applicant's claims 11, 12, 13, 14, 15, 16, 42, 43, 44, 45, 46, 47, acknowledged mode protocol is a transmission control protocol (TCP), and the unacknowledged mode protocol is a user datagram protocol (UDP). The limitation cited by the reference Ludwig is valid.

Applicant respectfully disagrees with the Examiner's position.

First, Applicant submits that the Examiner mischaracterizes the arguments previously submitted. The Examiner states that "Applicant argues the reference Ludwig does not mention specifically transmitting payload and header information in either acknowledged or unacknowledged modes[.]" However, Applicant did not assert that argument in the Amendment filed October 24, 2007.

Instead, regarding the Ludwig reference, Applicant simply pointed out that the Examiner admits that Ludwig does not disclose only the header information in the bit stream is separately transmitted in an acknowledged mode protocol.[1] Thus, it is unclear as to what the Examiner means by the statement "Applicant argues the reference Ludwig does not mention specifically transmitting payload and header information in either acknowledged or unacknowledged modes, as recited in the claims."

Second, Applicant submits that none of the cited portions of Ludwig noted above disclose or suggest the claimed feature "only the header information in the bit stream is separately transmitted in an acknowledged mode protocol."[2] On the contrary, col. 2, lines 10-32 of Ludwig simply describes passing user data through different protocol layers using packet encapsulation. Ludwig goes on to state that on the receiving side, "the user data is extracted."[3] Therefore, Ludwig does not disclose or suggest "only the header information in the bit stream is separately transmitted in an acknowledged mode protocol", as claimed.

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[1] *See* Office Action, page 5, 1st full paragraph.

[2] Emphasis added.

[3] *See* Ludwig, col. 2, line 33.

Further, Applicant notes that even though col. 7, lines 46-50 and col. 11, lines 51-56 of Ludwig discuss "numbered" and "unnumbered" channels with respect to the transmission of TCP and UDP packets, nothing in the cited portions teaches or suggests "only the header information in the bit stream is separately transmitted in an acknowledged mode protocol," as claim 1 requires.[4] Thus, Applicant submits that Ludwig is deficient for at least these reasons.

Additionally, Applicant maintains the position that Sutoh and Zhu fail to cure the deficiencies of Ludwig. As noted above, the Examiner admits that Ludwig does not disclose only the header information in the bit stream is separately transmitted in an acknowledged mode protocol. Nonetheless, the Examiner contends that Sutoh discloses this claimed feature. In support of his position, the Examiner cites Sutoh, FIG. 19 and col. 13, lines 50-58, which states "can transmit the protocol header and data as separate blocks." The Examiner asserts that this "correlates to only the header information in the bit stream is separately transmitted." Applicant submits that the Examiner's reliance on Sutoh is misplaced.

In response, Applicant submits that the position that the cited portion of Sutoh simply states that the protocol header and data can be transmitted as separate blocks. This is not the same thing as the claimed feature "only the header information in the bit stream is separately transmitted in an acknowledged mode protocol." In other words, Applicant submits that sending header information separately from data, does not necessarily mean that only the header information is separately transmitted in an acknowledged mode protocol, as claim 1 requires.

Furthermore, Applicant points out that Sutoh fails to disclose or suggest any difference between how data and header information are transmitted. Moreover, Sutoh only describes

[4] Emphasis added.

acknowledged protocols. For example, FIG. 19 (cited by the Examiner) shows a flowchart of the transmission of data from one intelligent device to another. In particular, Applicant notes that FIG. 19 specifically shows an acknowledgement signal sent back to the requesting device after copying data blocks (i.e., sending a "RECEIVE ACKNOWLEDGE" or a "NEGATIVE RECEIVE ACKNOWLEDGE" command). Thus, transmissions of data blocks must be acknowledged in Sutoh.

Consequently, Applicant maintains the position that the cited portion of Sutoh does not state only header information is transmitted in an acknowledged mode protocol. To the contrary, the cited portion of Sutoh states that data blocks must be acknowledged. Thus, Sutoh does not correspond to the claimed features set forth in independent claim 1.

In view of the above-noted deficiency of Sutoh, Applicant submits that Sutoh fails to disclose or suggest the feature "and only the header information in the bit stream is separately transmitted in an acknowledged mode protocol,"[5] as claimed.

Furthermore, Zhu fails to cure the deficiencies of Ludwig and Sutoh, since Zhu is completely silent as to both acknowledged and unacknowledged mode protocols. Therefore, Applicant submits that none of the cited references, either alone or in combination, teaches or suggests the above-noted features set forth in independent claim 1.

Regarding the combination of Ludwig and Zhu, the Examiner goes on to conclude:

> [i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ludwig to include receiving a bit stream and a header information received in an acknowledged or unacknowledged mode protocol in the

[5] Emphasis added.

> communication network to each layer as taught by Sutoh in order to provide a control system for the peripheral component interconnect bus as suggested by Sutoh (see column 1, lines 9 -11).

Again, Applicant respectfully disagrees with the Examiner's position.

Even assuming, *arguendo*, the cited references disclose all of the above-noted features of claim 1, Applicant submits that it would not have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify Ludwig in view of Sutoh, as the Examiner suggests, since such a modification of Ludwig would impermissibly alter the principle of operation of Ludwig.[6] Ludwig describes a very particular implementation of a protocol which embeds packets based on the type of data, so that adjustable parameters can be set automatically at the layer providing the parameters being adjusted in accordance with the packets being embedded.[7] Specifically, Ludwig states:

> the discriminator means is arranged to analyze said one or more sections to thereby discriminate the data packets in accordance with their contents. More specifically, said one or more sections are packet headers associated with respective protocol layers and containing protocol identification information identifying the protocol with which the contents of the packet are associated. The packet headers form a hierarchy in accordance with the protocol layers, and, for a packet to be discriminated, the discriminator is arranged to first determine the protocol identification in the header associated with the first higher layer protocol and then compare said protocol identification with stored rules that allocate a

[6] *See* MPEP §2143.01(VI).

[7] *See* Ludwig, Abstract.

> predetermined transmission reliability mode to predetermined protocol identifications.[8]

In other words, the discriminator (1)[9] requires data packets including their protocol headers in order to operate correctly.

Therefore, if one of ordinary skill in the art were to modify Ludwig to obtain the claimed invention, not only would a substantial reconfiguration be required,[10] but the system of Ludwig would be unsuited for its intended purpose,[11] (i.e., to embed packets based on the type of data, so that adjustable parameters can be set automatically at the layer providing the parameters being adjusted in accordance with the packets being embedded), since the discriminator device would not function correctly if only the header information in the bit stream is separately transmitted in an acknowledged mode protocol.

Accordingly, Applicant submits that independent claim 1 is patentable over the prior art of record, for at least these reasons. Similarly, Applicant submits that independent claims 2, 29, 30, 32 and 33 are patentable for analogous reasons. Further, Applicant submits that dependent claims 5-28 and 36-59 are patentable over the prior art of record, at least by virtue of their respective dependency on claims 1, 2, 32 and 33.

Regarding claims 29, the Examiner states:

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[8] *See* Ludwig, col. 12, line 60 to col. 13, line 7.

[9] *See* Ludwig, FIG. 8.

[10] *See In re Ratti*, 270 F.2d 810,813 (CCPA 1959) (decision reversing an obvious rejection stating" suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.").

[11] *See* MPEP §2143.01(V).

> applicant argues the reference Ludwig or Zhu of transmitting the bit stream in an unacknowledged mode protocol, and transmitting the header information in an unacknowledged or acknowledged mode protocol. Examiner contends the reference Ludwig discloses implicitly the reference Ludwig [sic] of transmitting the bit stream in an unacknowledged mode protocol, and transmitting the header information in an unacknowledged or acknowledged mode protocol (see column 2, lines 10 - 20; column 7, lines 46 - 50; column 11, lines 51 - 56).

However, even assuming, *arguendo*, Ludwig discloses implicitly the reference Ludwig [sic] of transmitting the bit stream in an unacknowledged mode protocol, and transmitting the header information in an unacknowledged or acknowledged mode protocol, Applicant submits that the claim requires, *inter alia*, separately transmitting only header information in an unacknowledged or acknowledged mode protocol. Thus, Applicant submits that independent claim 29 is patentable for reasons analogous to those stated above regarding independent claim 1.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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